

## ABSTRACT

In a post chemical-mechanical polishing (CMP) procedure for cleaning a workpiece, a cleaning solution is delivered to the core of a brush where the solution is absorbed by the brush and then applied by the brush onto the workpiece. The cleaning solution is uniformly applied to the workpiece. The volumes of solutions used in the scrubbing process is reduced. A thin oxide layer is etched. A hydrophilic surface state is maintained. The workpiece is then rinsed and dried in a centrifugal processing between upper and lower rotors. A high level clean is achieved while consumption of rinsing and drying fluids is reduced.